The Conservation Strip

CONSERVING NATURAL RESOURCES FOR A BETTER ENVIRONMENT

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Buyer Beware!

By Kerry Wharton, E&S Specialist

When buying a house, we often ooh and aah over the interior of the house and the landscaping, but are we looking at the whole package that includes possible wetlands, common areas, or stormwater ponds in your backyard? When plans are developed to create a housing community, there are requirements that have to be followed under federal, state, and local jurisdictions that may impact your property. Many of those requirements include Wetland Preservation, Open Space, Tree Save areas, Conservation areas, and Stormwater Drainage Easements or other requirements not mentioned here. The following are common items that we often hear about from homeowners who have just purchased a new home.

Common complaints and suggestions:

Sump pump runs constantly - This could be due to high water tables. Sump pump issues usually can be addressed by the home builder if the house is fairly new and included in the warranty.

Want to fill in **swale** in backyard - This may be a storm water drainage easement; this area has been designed to convey stormwater, and cannot be altered.

Backyard is saturated during and immediately after a rainfall event - This may be due to high water tables or due to certain soil types that do not allow water to drain quickly through soils.

Lack of or no **vegetation** on property - Is stabilization included in the building contract? If the warranty has not expired, this should be addressed by the builder. In subdivisions, builders are responsible for stabilizing lots but on rural single-family homes refer to your contract with your builder.

Water is **ponding** at the storm sewer riprap outfall next to my property - It is possible that the outfall has not been installed properly and does not allow adequate flow away from the storm sewer pipe; this should be address by the land developer.

Items to check for when purchasing a new home:

Is there is a **gradual slope** away from the house to allow water to drain off the property and not toward the home or basement? Make sure the sump pump outlet has enough fall to allow it to pump water away from basement footers.

Swales on property may be part of required storm water drainage easement; these areas cannot be filled in or impacted in any way.

If there are **wetlands** on the perimeter or on the property itself, these areas may be Wetland Preservation areas and are a federal requirement. These areas are normally left in 'as is' condition. This includes no clearing of undergrowth, grading, mulching, etc.

Stormwater ponds are a requirement to address drainage areas that have been changed due to site conditions such as grading and building homes. Stormwater ponds must be maintained, no trees planted on embankment, etc. No equipment, vehicles, and four-wheelers should be on embankment for recreational use that can affect the integrity of the dam. Only maintenance equipment should be allowed on the embankment.

Trees that have fallen in a Tree Save area may be able to be removed with approval from the Fauquier County Zoning Department.

Make sure the property will be adequately **stabilized** prior to buying or obtaining ownership of new property, including areas adjacent to waterways such as streams and ponds.

Refer to Department of Professional and Occupational Regulation to report complaints regarding contractors/builders. http://www.state.va.us/dpor/con_main.htm

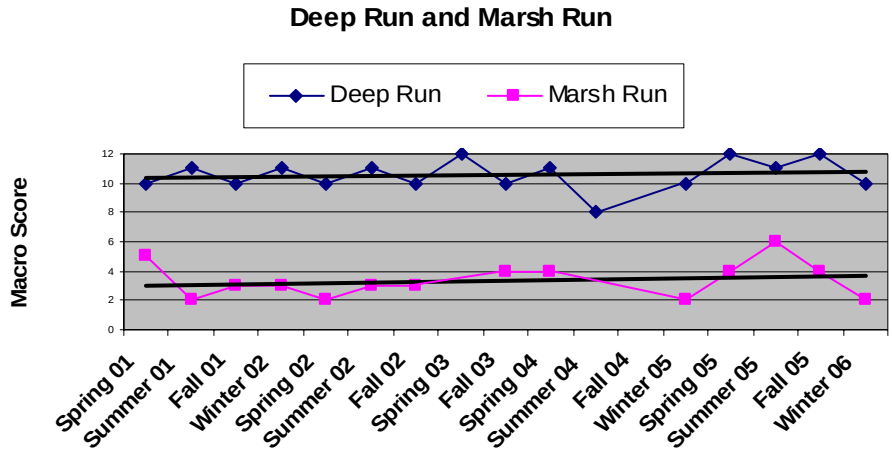
Many of the situations noted above especially those relating to areas that are federally protected, usually cannot be 'fixed or changed'. These areas are required to remain as natural as possible. Contact your Home Owners Association (HOA) for documentation to find out what the limitations are in these areas. If you do not live in a subdivision, check your deed and plat for any restrictions.

The best way to avoid some of these issues is to educate yourself before purchasing any property. One way this can be done is by using the Fauquier County Geographic Information Systems (GIS). This system allows you to look up information on the property soils, hydrography, water features, topography and other features. Contact Fauquier County Community Development for GIS assistance at (540) 341-8660. For assistance on active construction sites, contact John Marshall SWCD at (540) 347-3120.

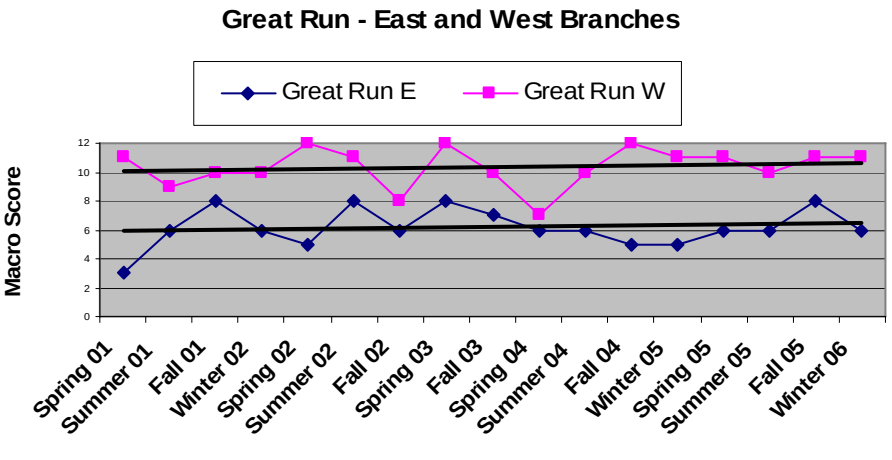
Five Years of Macroinvertebrate Data

Personnel from the John Marshall SWCD, as well as several volunteers, have been collecting macroinvertebrate data from local streams since 2001. The streams are all tributaries of the Rappahannock River. They are sampled quarterly using the Modified Virginia Save Our Streams Method, which has been featured in this newsletter on several occasions. Basically, the process involves using a seine to collect macroinvertebrates from the riffle areas of the streams. Typical macroinvertebrates include larval mayflies and stoneflies, beetles, dragonflies, black flies, midges, worms, and clams. The stream receives a score based on the numbers of various macroinvertebrates caught, and their tolerance to pollution. Scores range from 0-12, with a score of '7' and above considered 'acceptable', while scores of '6' and below are 'unacceptable'. The charts below and on the next page show quarterly results and overall trends for two streams each for ease of reading. Most streams have remained pretty consistent, with the exception of the Jordan River, which has shown improved scores. The charts and trend lines were made using Microsoft Excel.

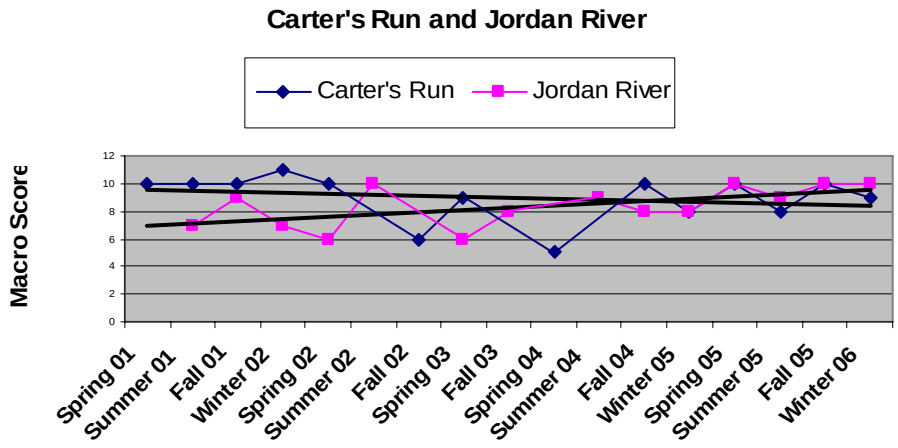
The Jordan River in Rappahannock County enters the Rappahannock River just above the bridge on Rt. 647, Crest Hill Road. Streams are monitored for macroinvertebrates in April, July, October, and January. All data is entered on the Virginia Save Our Streams website, and can be viewed at http://www.sosva.com/.



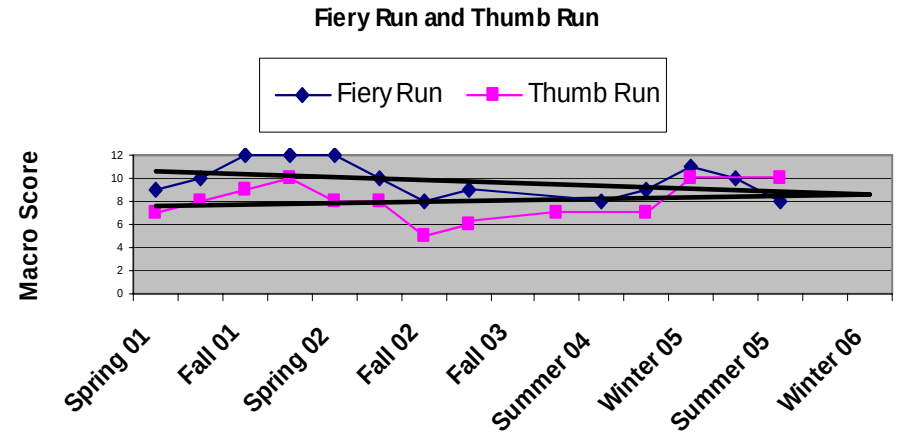
Deep Run, which forms the border of Fauquier and Stafford Counties looks like a mountain trout stream where it is sampled below the Rt. 615 bridge, Thompson's Mill Road. It is always full of mayflies and stoneflies and consistently scores high. **Marsh Run**, which is sampled just above the bridge on Savannah Branch Road has consistently scored low. However, the riffle at this site is marginal, with few rocks and minimal current. Beavers temporarily dammed the site in 2005.



The **East Branch** of **Great Run** drains the western section of the Town of Warrenton and areas just to the west of the town limits. It includes shopping centers, residential areas, Fauquier High School, and the sewage treatment plant. It is sampled where it passes under Springs Road. The **West Branch** is sampled on Blacksnake Lane and drains a large area to the west of Warrenton, and includes a mix of pasture and forest lands.



Carter's Run drains the area of Fauquier County west of Warrenton, from Marshall to the Rappahannock River. It is monitored where it passes under Cliff Mills Road, Rt. 681. It showed a slight decline in 2003, but has bounced back since Fall 2004. The **Jordan River** in Rappahannock County has shown a steady improvement, even though it started out in the 'acceptable' range. Over 500 acres of conservation practices have been installed in the drainage.



Fiery Run drains a small section of Fauquier west of Hume. It is monitored where it passes under Rt. 635, Hume Road. It has always scored pretty high, although a few heavy rains in recent years have altered the riffle habitat by washing away many of the medium sized rocks favored by macros. **Thumb Run** is monitored below the Rt. 688 bridge north of Orlean, and has fluctuated over the years, but remained in the acceptable range most of the time.

PDR Application Cycle

The Fauquier County Agricultural Development Office announces that new applications for the Purchase of Development Rights Program will be accepted from June 1, 2006 through August 31, 2006

The PDR Program is a voluntary program that pays landowners to enter agreements to sell the development potential of qualifying farm property. The purpose of the PDR Program is to protect farmland and retain agriculture's critical mass, in particular, farm parcels that are economically viable operations. To date, over 4,100 acres in Fauquier County have been approved for the PDR Program. The price paid per development right has been increased to $30,000.

For an application or more information, contact the Fauquier Agricultural Development Office at 35 Culpeper Street, Warrenton, VA 20186, or call 540-349-5314, or visit www.fauquierag.com.

New Employee

Jacob Bauckman is John Marshall's new Erosion and Sediment control inspector for single family homes. He is a graduate of Virginia Tech with a degree in Fisheries Science and minors in Watershed Management and Biology.

Jacob lives in Stafford and spends most of his free time on the Potomac River or Lake Anna. He enjoys fishing, kayaking and waterskiing during the warmer seasons. In winter he enjoys snow skiing and watching Virginia Tech/Redskin football. Jacob is looking forward to keeping sediment where it belongs and stopping erosion before it happens.

COST SHARE PROGRAM UPDATE
News For Crop Farmers! By Tom Turner, Conservation Specialist

The FY 2007 Virginia Agricultural Best Management Practices Cost Share program has some significant changes that may be of interest to many of you, especially crop farmers. Those program folks down in Richmond have tried hard to get some different strategies out there this year to work for both farmers and water quality. Current research indicates that planting winter cover crops and implementing nutrient management plans really make a difference when it comes to controlling nutrient loss from farmland. Cover crops absorb remaining nutrients from prior crops, protect soil from erosion, and build organic matter in the soil. Implementing nutrient management plans reduces the over application of nutrient as the application of fertilizers is based on soil nutrient levels and the crop needs. Here are a couple of the new practices relate to cropping systems.

Three year small grain cover crop practice for nutrient and residue management (SL-8C). This practice will pay a yearly base rate of $20-$30/acre for the planting of winter cover crops, a $15/acre early planting bonus, and an additional $5/acre bonus for planting approved cereal rye. If the cover crop is maintained yearly on the same acreage another $5/acre will be added to the contract.

Three year contract for nutrient plan writing and revisions (NM-1). This practice provides $2/acre for three years for cropland receiving commercial fertilizer, or permanent hay and pasture receiving manure from VA sources, and $3/acre for three years for cropland or permanent hay and pasture receiving on farm generated manure.

Three year contract for nutrient management plan implementation and record keeping (NM-2). This practice provides a payment of $3/acre for three years for implementing a nutrient management plan on cropland and permanent hay and pasture receiving manure from VA sources. Nutrient management plan and signed records kept on file at SWCD for verification.

OTHER PROGRAM CHANGES OF INTEREST TO CROP FARMERS

Small Grain Cover Crop for Nutrient Management (SL-8B). No nutrients before February 15. $20 base payment, $15 early planting bonus, $5 rye bonus, expanded cultivar list.

Side dress application of nitrogen on corn (NM-3). Up to $6/acre, allows re-enrollment, and $8/sample on soil tests. Participant must be implementing current nutrient plan and have it on file at SWCD.

Manure application to corn to corn using pre-side dress nitrate test to determine need for nitrogen (NM-3B). Provides $6/acre, allows re-enrollment, and $8/sample on soil tests. Participant must be implementing current nutrient plan and have it on file at SWCD

Late winter split application of nitrogen on small grain (NM-4). $4.50/acre, allows re-enrollment, and $8/sample on soil tests. Participant must be implementing current nutrient plan and have it on file at SWCD.

For more information on these and other conservation practices call the John Marshall SWCD at 540-347-3120 ext. 3 and ask to speak with Tom Turner or Larry Dunn.

Conservation/Agricultural Specialist Position

The John Marshall SWCD is seeking a self-motivated full time Conservation/Agricultural Specialist interested in making a positive impact on water quality in Fauquier County. Duties include providing information to land owners about Total Maximum Daily Load (TMDL) implementation goals, the need to protect water quality, financial incentive programs, technical assistance, and design and survey of agricultural practices. Additional duties include the preparation and presentation of educational programs to the public and keeping accurate digital and written records. BS degree in agriculture/natural resources preferred and/or equivalent experience. Computer experience required , mapping and surveying a plus. Starting salary $32,000 -$38,500 based on experience. Excellent benefits available. For application and job description call (540) 347-3120 x 3, or email johnmarshall.swcd@vaswcd.org. **Open Until Filled**

Highland Students Complete Leaf Pack Project

Fifth grade science students of Claire Mello at Highland School in Warrenton recently completed a Leaf Pack Project. The Leaf Pack Project is a relatively new twist on macroinvertebrate monitoring. Instead of catching macroinvertebrates with nets and seines, students place mesh bags containing leaves in a stream for 3-4 weeks. After the 3-4 week period, the bags are collected and checked to see what types of macroinvertebrates have taken up residence in the leaf packs. The students empty the bags into trays for sorting and counting, and the stream receives a score based on the results.

The project uses the Leaf Pack Experiment Kit from the LaMotte Company and results can be shared through the Leaf Pack Network coordinated by the Stroud Water Research Center located in Avondale Pennsylvania. More details on how to conduct the project, including an informative eight minute video, are available from their website at http://www.stroudcenter.org/lpn/index.htm.

Students sort through the contents of the bags looking for mayflies, stoneflies, hellgrammites, and other macroinvertebrates. They are placed in Petri dishes, and a key is provided to assist with identification.

After 4 weeks, the mesh bags were collected. Each group of students used a different type of leaf as a study variable. Oak, maple, and paw paw leaves were used to see if the macroinvertebrates had a preference. Students worked in the field and returned their catch to the stream.

The project was conducted at Clifton Farm near Warrenton, which is the field station for Environmental Studies at Airlie. Caryl Buck, Staff Naturalist for ES helped coordinate the project along with staff from the John Marshall SWCD. For more info, call 347-3120.

The Conservation Strip is a quarterly publication of the **JOHN MARSHALL SOIL AND WATER CONSERVATION DISTRICT,** 98 Alexandria Pike, Suite 31, Warrenton, VA 20186

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Horse Pasture Management

If you are tired of wading around in muck, or are concerned about your horses damaging soggy pastures, a sacrifice area may be a big improvement. A sacrifice area is a small, well drained enclosure for confining your animals when pastures are too wet to be utilized, or to avoid overgrazing when forage is lacking.

Sacrifice areas range in size from 500 square feet to 10,000 square feet depending on the number of animals and exercise objectives. They are best located on higher ground convenient to the barn. Typical installations involve the removal of grass cover and other organic material, smoothing the site, and placement of a layer of geo-textile fabric topped with 6 inches of stone dust. Regular removal of manure and the installation of gutters on barn roofs help to maintain a dry, pest free confinement area.

Technical assistance and a 25% Virginia state income tax credit from the Virginia Agricultural Best Management Practices Tax Credit Program is available to assist landowners with the cost of installing sacrifice areas. Contact the John Marshall SWCD for further information and assistance (540-347-3120 ext. 3).

Growing grass is almost impossible when horses are confined to a small area. Mud can also be a problem during wet seasons. A sacrifice area may be the solution for many horse owners. Contact the John Marshall SWCD for more information on sacrifice areas.

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